

CLAIMS

What is claimed is:

- 1 1. A method comprising:
 - 2 providing first one or more application service contracts by a first
 - 3 application service provider (Provider) to a community of one or more subscriber
 - 4 application routers (SAR), said first one or more application service contracts
 - 5 specifying subscriptions to first one or more application services provided by first
 - 6 one or more servers of said first Provider;
 - 7 automatically provisioning first one or more application delivery transports
 - 8 to facilitate delivery of said first one or more application services provided by said
 - 9 first one or more servers of said first Provider to clients of said Subscriber in
 - 10 accordance with said first one or more application service contracts;
 - 11 providing second one or more application service contracts by a second
 - 12 application service provider (Provider) to the community of one or more
 - 13 subscriber application routers (SAR), said second one or more application
 - 14 service contracts specifying subscriptions to second one or more application
 - 15 services provided by second one or more servers of said second Provider;
 - 16 automatically provisioning second one or more application delivery
 - 17 transports to facilitate delivery of said second one or more application services
 - 18 provided by said second one or more servers of said second Provider to clients
 - 19 of said Subscriber in accordance with said second one or more application
 - 20 service contracts; and

21 delivering selected ones of said first and second application services
22 provided by said first and second one or more servers of said first and second
23 Providers through selected ones of said first and second application delivery
24 transports respectively.

1 2. The method of claim 1, wherein said first one or more application service
2 contracts are provided by a community of one or more provider application
3 routers (PARs) and said second one or more application service contracts are
4 provided by a second community of one or more PARs.

1 3. The method of claim 2, wherein said automatically provisioning first one or
2 more application delivery transports further comprises:
3 identifying, by a first SAR of said community of one or more SARs, a
4 preferred PAR of said first community of one or more PARs; and
5 negotiating a subnet and a shared secret between said first SAR and said
6 preferred PAR to facilitate provisioning of said first one or more delivery
7 transports.

1 4. The method of claim 1, wherein said providing first one or more
2 application service contracts to a community of one or more SAR(s) comprises
3 providing one or more unapproved service contracts to a community of one or
4 more SAR(s) for approval by the SAR(s).

1 5. The method of claim 4, wherein said community of one or more SAR(s)
2 approves said one or more unapproved service contracts through manifestation
3 of a digital signature by the approving SAR(s).

1 6. The method of claim 1, wherein at least one of said first one or more
2 application delivery transports and said second one or more application delivery
3 transports comprise one or more virtual private network tunnels.

1 7. In a subscriber application routing device (SAR), a method comprising:
2 receiving first one or more application service contracts from a first
3 application service provider (Provider), said first one or more application service
4 contracts specifying subscriptions to first one or more application services
5 provided by first one or more servers of said first Provider;
6 automatically provisioning first one or more application delivery transports
7 to facilitate delivery of said first one or more application services provided by said
8 first one or more servers of said first Provider to clients of said Subscriber in
9 accordance with said first one or more application service contracts;
10 receiving second one or more application service contracts from a second
11 application service provider (Provider), said second one or more application
12 service contracts specifying subscriptions to second one or more application
13 services provided by second one or more servers of said second provider;
14 automatically provisioning second one or more application delivery
15 transports to facilitate delivery of said second one or more application services

16 provided by said second one or more servers of said second Provider to clients
17 of said Subscriber in accordance with said second one or more application
18 service contracts; and
19 receiving selected ones of said first and second application services
20 provided by said first and second one or more servers of said first and second
21 Providers through selected ones of said first and second application delivery
22 transports.

1 8. The method of claim 7, wherein said SAR solicits said first one or more
2 application service contracts from said first provider.

1 9. The method of claim 7, wherein said first one or more application service
2 contracts are received from said first provider through an encrypted control
3 channel.

1 10. The method of claim 7, further comprising:
2 approving at least a subset of said first one or more application service
3 contracts received from said first provider, and
4 transmitting said approved one or more application service contracts back
5 to said first provider.

1 11. The method of claim 7, wherein said automatically provisioning said first
2 one or more application delivery transports comprises automatically provisioning

3 a first one or more virtual private network tunnels between said SAR and said
4 first provider.

1 12. A subscriber application routing device (SAR) comprising:
2 a storage medium having stored therein a plurality of programming
3 instructions, which when executed cause the SAR to
4 receive first one or more application service contracts from a first
5 application service provider (Provider), said first one or more application
6 service contracts specifying subscriptions to first one or more application
7 services provided by first one or more servers of said first Provider,
8 automatically provision first one or more application delivery
9 transports to facilitate delivery of said first one or more application
10 services provided by said first one or more servers of said first Provider to
11 clients of said Subscriber in accordance with said first one or more
12 application service contracts,
13 receive second one or more application service contracts from a
14 second application service provider (Provider), said second one or more
15 application service contracts specifying subscriptions to second one or
16 more application services provided by second one or more servers of said
17 second provider,
18 automatically provision second one or more application delivery
19 transports to facilitate delivery of said second one or more application
20 services provided by said second one or more servers of said second

21 Provider to clients of said Subscriber in accordance with said second one
22 or more application service contracts, and
23 receive selected ones of said first and second application services
24 provided by said first and second one or more servers of said first and
25 second Providers through selected ones of said first and second
26 application delivery transports; and
27 an execution unit coupled to the storage medium for executing the
28 plurality of programming instructions.

1 13. The SAR of claim 12, wherein said SAR solicits said first one or more
2 application service contracts from said first provider.

1 14. The SAR of claim 12, wherein said first one or more application service
2 contracts are received from said first provider through an encrypted control
3 channel.

1 15. The SAR of claim 12, further comprising instructions to
2 approve at least a subset of said first one or more application service
3 contracts received from said first provider, and
4 transmit said approved one or more application service contracts back to
5 said first provider.

1 16. The SAR of claim 12, wherein said instructions to automatically provision
2 said first one or more application delivery transports further comprises
3 instructions to automatically provision a first one or more virtual private network
4 tunnels between said SAR and said first provider.

1 17. In a subscriber application routing device (SAR), a method comprising:
2 receiving one or more application service contracts from an application
3 service provider (Provider), said one or more application service contracts
4 specifying subscriptions to one or more application services provided by one or
5 more servers of said Provider;

6 request from the Provider a list of provider application routers (PARs)
7 identified as being able to support a given contract of said one or more
8 application service contracts;

9 automatically provisioning one or more application delivery transports
10 between said SAR and a selected one or more of said listed PARs to facilitate
11 delivery of said one or more application services provided by said one or more
12 servers of said Provider to clients of said Subscriber in accordance with said one
13 or more application service contracts; and

14 receiving selected ones of said application services provided by said one
15 or more servers of said Provider through selected ones of said application
16 delivery transports respectively.

1 18. The method of claim 17, wherein said selected one or more of said listed
2 PARs are selected by the SAR based at least in part upon response times of the
3 respective PARs.

1 19. The method of claim 17, wherein automatically provisioning one or more
2 application delivery transports comprises establishing one or more virtual private
3 network tunnels between said SAR and said selected one or more PARs.

1 20. A subscriber application routing device (SAR) comprising:
2 a storage medium having stored therein a plurality of programming
3 instructions, which when executed cause the SAR to
4 receive one or more application service contracts from an
5 application service provider (Provider), said one or more application
6 service contracts specifying subscriptions to one or more application
7 services provided by one or more servers of said Provider,
8 request from the Provider a list of provider application routers
9 (PARs) able to support a given contract of said one or more application
10 service contracts;
11 automatically provision one or more application delivery transports
12 between said SAR and a selected one or more of said listed PARs to
13 facilitate delivery of said one or more application services provided by said
14 one or more servers of said Provider to clients of said Subscriber in
15 accordance with said one or more application service contracts,

16 receive selected ones of said application services provided by said
17 one or more servers of said Provider through selected ones of said
18 application delivery transports respectively; and
19 an execution unit coupled to the storage medium for executing the
20 plurality of programming instructions.

1 21. The apparatus of claim 20, wherein said selected one or more of said
2 listed PARs are selected by the SAR based at least in part upon relative
3 response times of the respective PARs.

1 22. The apparatus of claim 20, wherein said instructions for automatically
2 provisioning one or more application delivery transports further comprises
3 instructions for establishing one or more virtual private network tunnels between
4 said SAR and said selected one or more PARs.

1 23. In a provider application routing device (PAR), a method comprising:
2 providing first one or more application service contracts to a first
3 community of one or more subscriber application routers (SAR), said first one or
4 more application service contracts specifying subscriptions to first one or more
5 application services provided by first one or more servers of said Provider;
6 providing second one or more application service contracts to a second
7 community of one or more subscriber application routers (SAR), said second one
8 or more application service contracts specifying subscriptions to second one or

9 more application services provided by second one or more servers of said
10 Provider; and
11 delivering selected ones of said first and second application services
12 provided by said first and second one or more servers of said Provider through
13 selected ones of a first one or more application delivery transports provisioned
14 between said first community of one or more SARs and said PAR and a second
15 one or more application delivery transports provisioned between said second
16 community of one or more SARs and said PAR.

1 24. The method of claim 23, wherein the selected ones of said first and
2 second application services are delivered to one or more clients of said first
3 community of one or more SARs.

1 25. The method of claim 23, wherein said PAR is one of a community of
2 PARs.

1 26. The method of claim 25, further comprising:
2 identifying which PAR(s) amongst the community of PARs are able to
3 support a selected one of said first one or more application service contracts;
4 and
5 notifying said first community of one or more SARs as to which PARs are
6 able to support the selected one of said first one or more application service
7 contracts.

1 27. The method of claim 23, wherein said first one or more application
2 delivery transports comprise first one or more virtual private network tunnels.

1 28. A provider application routing device (PAR) comprising:
2 a storage medium having stored therein a plurality of programming
3 instructions, which when executed cause the PAR to
4 provide first one or more application service contracts to a first
5 community of one or more subscriber application routers (SAR), said first
6 one or more application service contracts specifying subscriptions to first
7 one or more application services provided by first one or more servers of
8 said Provider,
9 provide second one or more application service contracts to a
10 second community of one or more subscriber application routers (SAR),
11 said second one or more application service contracts specifying
12 subscriptions to second one or more application services provided by
13 second one or more servers of said Provider, and
14 deliver selected ones of said first and second application services
15 provided by said first and second one or more servers of said Provider
16 through selected ones of a first one or more application delivery transports
17 provisioned by said first community of one or more SARs and a second
18 one or more application delivery transports provisioned by said second
19 community of one or more SARs; and

20 an execution unit coupled to the storage medium for executing the
21 plurality of programming instructions.

1 29. The PAR of claim 28, wherein the selected ones of said first and second
2 application services are delivered to one or more clients of said first community
3 of one or more SARs.

1 30. The PAR of claim 28, wherein said PAR is one of a community of PARs.

1 31. The PAR of claim 30, further comprising instructions to:
2 identify which PAR(s) amongst the community of PARs are able to
3 support a selected one of said first one or more application service contracts;
4 and
5 notify said first community of one or more SARs as to which PARs are
6 able to support the selected one of said first one or more application service
7 contracts.

1 32. The PAR of claim 28, wherein said first one or more application delivery
2 transports comprise first one or more virtual private network tunnels.

1 33. In a provider application routing device (PAR), a method comprising:
2 providing first one or more application service contracts to a community of
3 one or more subscriber application routers (SAR), said first one or more

4 application service contracts specifying subscriptions to first one or more
5 application services provided by first one or more servers of said Provider; and
6 delivering selected ones of said first and second application services
7 provided by said first and second one or more servers of said Provider through a
8 selected one or more application delivery transports provisioned by said
9 community of one or more SARs.

1 34. A provider application routing device (PAR) comprising:
2 a storage medium having stored therein a plurality of programming
3 instructions, which when executed cause the PAR to
4 provide first one or more application service contracts to a community of
5 one or more subscriber application routers (SAR), said first one or more
6 application service contracts specifying subscriptions to first one or more
7 application services provided by first one or more servers of said Provider,
8 deliver selected ones of said first and second application services
9 provided by said first and second one or more servers of said Provider
10 through a selected one or more application delivery transports provisioned
11 by said community of one or more SARs; and
12 an execution unit coupled to the storage medium for executing the
13 plurality of programming instructions.